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CORRES CONTROL
INCOMING LTR NO

23581 RF 94

States Government

Department of Energy

DUE
DATE

Memorandum SEP 19 3 00 AM '94

Rocky Flats Field Office

ACTION

SEP 16 1994

EG&G
ROCKY FLATS PLANT
CORRESPONDENCE

ER WNF 09675


Transmittal of Comments on the Draft Phase I RCRA Facility Investigation/Remedial Investigation Report for Operable Unit 15, "Inside Buildings Closures"

Sue G Stiger, Director
Environmental Restoration Program Division
EG&G Rocky Flats, Inc

This document transmits the Department of Energy/Rocky Flats Field Office comments for Operable Unit 15 (OU 15) on the subject report. The most important question raised by the comments is the radionuclide contamination in Individual Hazardous Substance Sites (IHSS) 204, the Original Uranium Chip Roaster. It is our understanding that the radiation emitted in the rooms comprising this IHSS may exceed the radiation worker protection levels in 10CFR835, DOE Order 5480 11, and 29CFR1910.

The statement is made in the draft Phase I RCRA Facility Investigation/Remedial Investigation Report that "none of the radionuclide results exceeded the standards provided in the Applicable or Relevant and Appropriate Requirements." In the case of IHSS 204, this is probably incorrect.

We need to make the statements in the report agree with the reality of the situation.


 Frazer R. Lockhart, Director
 Major Systems Acquisition Division
 Environmental Restoration

Attachments

 cc w/Attachments
 R J Hyland, RTG
 D L Schubbe, EG&G

 cc w/o Attachments
 J M Roberson, AMER, RFFO
 W N Fitch, ER, RFFO
 A L Primrose, EG&G

 CORRES CONTROL X X
 ADMIN RECORD/080 X 2
 PATS/T130G
Reviewed for Addressee
Corres Control RFP9-19-94 JMA
DATE BY

Ref Ltr #

ADMIN RECORD

DOE ORDER # 5480.11

Comments of William N Fitch
draft Phase I RFI/RI Report
Operable Unit 15 Inside Building Closures

page paragraph line


- | | | | |
|------|---|--|--|
| ES-4 | 1 | 4 | The sentence stating "None of the IHSSs showed radionuclide activity levels of regulatory concern " is incorrect IHSS 204 is radioactive at levels requiring radiation control I know that the plan is to leave the cleanup for rads to the people using the uranium chip roaster people after they use it some more but I need some evidence that the roaster is planned for future use |
| ES-5 | 2 | Item 4 | Is the chip roaster and its rooms in compliance with the ARARs of rad worker protection standards The statement in item 4 is not correct |
| ES-6 | 2 | Item 9 | While the statement "the IHSSs do not exceed rad protection standards applicable under current land use " is technically correct you need to at the caveat "if institutional and engineering safe guards remain in place " |
| 1-5 | 1 | Item 1 | Delete "and need a RCRA -operating permit " and insert "as a 90-day storage unit " and "sites" to "site" in the first of the sentence |
| 1-8 | 1 | 7 | If there is a threat of a post-closure escape, then a BRA is required Can we separate the lack of a cleanup of the chip roaster from this need for a BRA? |
| 1-8 | 2 | Item 2 | The SOW states additional work is necessary at an IHSS when there is a threat of post-closure escape hazardous waste, etc This is not a problem in my opinion The threat should be contained by the building rad control program But regulatory controls need to be formally in place for the chip roaster |
| 1-14 | 5 | last sentence under RFI/RI Disposition | The statement "therefore, remedial alternative development was not necessary" does not consider IHSS 204 |
| 4-19 | | all bullets | The discussion states that Chi squared of 4.04 indicates that the alpha data is valid at the 99 per cent confidence level , <i>but not at a 95 percent confidence level</i> Please explain how this can be It does not agree with my understanding of statistics Perhaps I need a refresher The same problem occurs in the second bullet |

5-25	3	Step 3	Seven of the sampling areas failed the screening limit for beta There is potential for some rad to be in the floor Further work is needed, looking under the paint
5-27	2	See Figure 5-16	Table shows rinsate samples with gross alpha of 6400 pCi/L and Uranium 238 of 7600 pCi/L
5-29	4	5	There is a hint of rad in IHSS 180
7-2	2	8	If the equipment in the Chip Roaster Room is not used again, who will be responsible for the radiation cleanup? The ARAR's for radiation are currently exceeded Will a HHRA be required in the future?
7-3	1	2	It seems that the radiation data does exceed the ARAR in 204 Will a BRA be required?
8-2		Item 4	The statement that the IHSSs are in compliance with ARARs for rad is not correct in IHSS 204
8-3		Item 9	The Statement "There is no current or imminent threat at the OU15 IHSSs under the current land use " is misleading The phrase "and the administrative controls in place " should be added to this statement

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AMER
Form 91-01
Rev 2, 05/13/92

REVIEW COMMENT RECORD

Document Reviewed (Title, Number, Revision, Date, etc.) OU-15, Draft Phase I RFI/RI Report August, 1994			Reviewer R. J. Hyland Signature  Date September 8, 1994 Phone x2136 Organization: RTG/DOE -- RFFO/ER		Agreement with Dispositions Date Reviewer Document Preparer	
*Comment Type E = Essential (agreement must be documented for other than verbatim incorporation), S = Suggested, Non-C = Nonconcurrency						
Comment No	Comment Type*	Sect/Para No	Comment	Disposition		
1	E	Response to Original Comments	<p>Draft Phase I TM-1 Comment #11 Page 3-3, 1st para - CO₂ is identified as a VOC Is this a misprint, typo, etc</p> <p>Final Phase I TM-1 Comment #4 The sentence may have been corrected but the concept still persists. CO₂ is identified as a COC for IHSSs 179 and 180 in Subsection 5 1 2 CO₂ is present in all IHSSs and is, in fact, present in the atmosphere Am I missing something here or is this a typo, misprint or mistake made previously that has been carried on? If CO₂ is in fact a COC then some form explanation should be included in the write-up If it should be Carbon Tetrachloride then it should be changed If this is a typo/mistake that has been carried through for some unknown reason then it should be addressed, in some logical fashion, before the release of the RI/RFI Report and the ensuing public comment If I am confused, so shall they be</p>			

AMER REVIEW OF TECHNICAL DOCUMENTS

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August, 1994	Organization RTG/DOE — RFFO/ER	Document Preparer.

Comment No	Comment Type*	Secl/Para No	Comment	Disposition
1 (cont)	E	Draft Ph-I RFI/RI Report Sect 2, Pg 7/28 Para 2 2 1 Sect 5, Pg 5/92 Para 5.1 1 3	<p>AND THE SAGA CONTINUES</p> <p>The last line of the last paragraph refers to CO₂ as a VOC</p> <p>CO₂ is identified as a constituent of concern</p> <p><u>WHY??????</u></p> <p>Why is CO₂ still identified as a contaminant? A logical explanation why CO₂ is considered to be a contaminant should be included in the Final Phase I RFI/RI Report document or the call out of CO₂ as a contaminant should be dropped from the document. It makes little sense to identify something that surrounds us in the environment as a contaminant without an explanation Failure to respond to this comment may jeopardize the delivery of the document to the regulators This comment was made pertinent to the May, 1994 Final Phase I TM-1 and not adequately responded too</p>	

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2	E	Response to Comments	<p>Draft Phase I TM-1 Comment #20 As a general comment - The term "Error" is used but not defined or stipulated in some other manner Is this term "±"? Is it in % or some other units? Please define.</p> <p>Final Phase I TM-1 Comment #5 The definition as presented on page ix of x1 is weak It is hard to comprehend this explanation in either terms of a ± percent or a confidence level The fact that there are counting errors is well known The degree of error differs with different machines, analyses, etc Statistically what is the error in definitive terms?</p> <p>"Error" – Are there any percent or units associated with the values shown? Two standard deviations usually means counts. Please expand</p>	
		TOC and Sect 4 pg 22/44 Tbl 4-2, et al		

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3	E	General and List of Acronyms	<p>The CDH is now the Colorado Department of Public Health and Environment (CDPHE)</p> <p>The RFP is now the "Rocky Flats Environmental Technology Site (Site) " It is currently understood that the DOE Site Manager does not like "RFEIS" since it presents the connotation of "Rocky Flats Eats"</p> <p>The entire document should be cleansed of the old and the new inserted. Additionally, the "List " should be modified to reflect the new</p> <p>The acronym "WSRIC" is used in the document and not apparently defined either in the text or the "List "</p>	
4	E	List of References	The listing is incomplete. There are numerous instances in the document where a document is referenced and it is not identified in the "List . "	
5	E	Executive Summary Page 2/6 et al	<p>Last Paragraph, 1st line</p> <p>The complete name of the Work Plan should be used. This is true for the rest of the document also. Additionally, the Work Plan is not identified as a Reference</p>	
6	E	Executive Summary Page 4/6	<p>First Paragraph, last sentence</p> <p>The wording is questionable. For one thing everything is of a regulatory concern, there is no such thing as BRC for either the EPA or the CDPHE at the Site. The second thing the statement is not true</p>	

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7	E	Executive Summary Page 5/6	Conclusion #4 IHSSs 179 and 204 may not fit this statement	
8	E	Executive Summary Page 5/6	Conclusion #5 According to the DOE H&S folks, the term standard for Be on the surface is not accurate. The proper terminology is "an accepted and achievable cleanliness level." The term standard apparently connotes some form of regulatory level, which does not exist for Be surface contamination. There is a 29CFR1910 (OSHA) Be airborne level, which is a standard. This needs to be clarified. Also HSP 13 04 may utilize both the OSHA Standard and the industry accepted cleanliness level.	
9	E	Executive Summary Page 6/6	Conclusion #8 The EPA RPM has publicly disputed this stance and it is doubtful that you will be able to prove this conclusively. The backup statement is true as long as certain conditions are met. These conditions will preclude the unrestricted release for radionuclides or even the restricted use without institutional controls or engineered safeguards in place. For radionuclides 10CFR20, Appendix B criteria are being used. These criteria are for radiation workers and by their very nature imply institutional controls. Conclusion #9 See above. The selling of IHSS 204 to the regulators based upon the explanatory statement will be a good trick	

AMER REVIEW OF TECHNICAL DOCUMENTS

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10	E	Sect 10 Para 114 Page 5/21	Three categories of IHSSs are identified, however, IHSSs 211 does not appear to fall into any of these categories since it is an in-use 90 Storage Area that will continue to be used after RCRA Clean Closure	
11	E	Sect 10 Para 121 Page 8/21	Last Paragraph This statement presents basic point of contention between EG&G and the EPA relative to CERCLA Closure for radionuclides	
12	E	Sect 10 Table 1-1 Page 11/21	Forth set of Blocks The IAG SOW Requirement First Bullet is incomplete The last sentence of the RFI/RI Disposition is inconsistent with the Second Bullet of the IAG SOW Requirement, if the regulators consider that radionuclides are Hazardous Constituents	
13	E	Sect 10 Table 1-2 Page 13/21	Section 30 – OU-15 ARARs Work Plan Commitment does not identify 29CFR1910 96, which is also an ARAR RFI/RI Disposition The term "dose-rate" is identified A more precise term would be the dose-rate for Radiation Workers or words to this effect.	

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14	E	Sect 10 Table 1-2 Page 14/21	Section 5 0 – RFI/RI Tasks, Third Bullet The acronym “WSRIC” is used and not identified in the “List” RFI/RI Disposition This last sentence may not be true for IHSS 204 Initially the assumption was made that the Original U Chip Roaster would be reused after RCRA Clean Closure to process U Chips. This assumption may not be valid in that the Roaster has been identified as a potential source of radioactive scrap metal (RSM) for the NCPP A final resolution needs to be made relative to the status of IHSS 204 in the light of current events and the “real world.” Is it to be RCRA Clean Closed and reused or is it to be RCRA Clean Closed and await decontamination and removal? And if it is the latter, who will do it — the NCPP Stage III Contractor or the Integration Contractor?	
15	E	Sect 10 Table 1-2 Page 15&16/21	Section 7 0 – FSP Differences exist between the Work Plan Commitment and the RFI/RI Disposition — One side uses Arabic Numerals for the Stages the other Roman Is this really the way they are?	

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16	E	Sect 10 Table 1-2 Page 18/21	Section 100 – QA Addendum OPS-FO 03 is identified in both the Work Plan Commitment and the RFI/RI Disposition, however, it could not be found to be identified in the Final Phase I RFI/RI Work Plan (WP). Is OPS-FO 03 a regulatory approved procedure? If so, what approved change to the WP incorporates this procedure? SOP FO.27 is also identified but not specifically called out in the WP. A review of SOP-FO 27 did not identify that either it or the DCNs to had been approved by the regulators. It appears that your "Trail of Bread Crumbs" is not fully defined, in that completely "approved procedures" may not exist. Because this could impact the final document please investigate and explain.	
17	E	Sect 20 Para 21 Page 2/28	Third Bullet, 2nd to last line The term — "runoff" (inside buildings) — is used Does this term mean runoff from the outside coming into the building or is there actually runoff inside of the building?	
18	E	Sect 20 Para 211 Page 4/28	Source Characteristics, 2nd sentence Recommend that the wording be made a bit stronger – Change " . are believed to have occurred . " to " have been identified . "	
19	E	Sect 20 Para 242 Page 12/28	Second Paragraph, last sentence As this sentence reads it means that the concrete floor was scuffed and in poor condition. You probably meant to say that the paint was scuffed and in poor condition. Please clarify the sentence.	

AMER REVIEW OF TECHNICAL DOCUMENTS

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20	E	Sect 2 0 Para 2 5 2 Page 15/28	Top Paragraph, last sentence The identified need for PPE in IHSS 204 does not give a lot of support to the "No Action" path	
21	E	Sect 2 0 Para 2 6 1 Page 16/28	Last sentence on page What does "collected in the waste vacuum cleaner and managed in the process drain" mean?	
22	E	Sect 3 0 Para 3 3 1 Page 6/36 and Page 7/36	First Paragraph Radiological Operating Instruction 3 1 is not identified in the WP but the other document Environmental Management Radiological Guidelines Section 3 1 is if it is also called EMRG 3 1 Have the regulators approved the use of a substitute procedure? Top Paragraph Counting and analysis instrumentation is identified, however, the proper procedure(s) for use with the instruments is(are) not. Is everything done or EMRG 3 1? Please clarify.	
23	E	Sect 3 0 Para 3 3 2 Page 7/36	First paragraph SOP FO 27 is identified. See Comment #16 above	

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24	E	Sect 3 0 Para 3 3 2 Page 8/36	First Paragraph EG&G SOP SW 2 is not identified in the WP Has its use been approved by the regulators?	
25	E	Sect 3 0 Para 3 3 2 Page 8/36 and 9/36	Last Paragraph page 8 and Top Paragraph page 9 What procedures are associated with the instrumentation identified and are these procedures identified in the WP?	
26	E	Sect. 3 0 Para. 3 4 Page 9/36	Bottom of page "dissolved radionuclides" are identified but not specifically identified Since U is the primary radiological COC shouldn't the CLP Protocol be identified?	
27	E	Sect 3 0 Para 3 5 Page 11/36	Top Paragraph Add a space at the end of the paragraph	
28	E	Sect 4 0 Para 4 2 1 Page 4/44	First Sentence SOP FO 27 is identified See Comment #16 above	

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29	E	Sect 4 0 Para 4 2 3 Page 19/44	First Bullet The write-up is confusing and does not appear to be in accordance with the explanation on the preceding page, i e , how can you have something that is valid at a confidence level of 99% and yet not be valid at a confidence level of 95%? This does not appear to valid statistically Last Paragraph, last full sentence Do you really want to acknowledge that there is contamination under the paint? This position is counter to your ER 2000 "No Action" position There appears to be missing data in the tables, please check and add as appropriate	
30	E	Sect 4 0 TbIs 4-2 thru 4-6 Page 19/44		
31	E	Sect 5 0 Para 5 1 2 Page 6/92	Top Paragraph RAGS Part A is not in the References What is it?	
32	E	Sect. 5.0 Para 5 2 1 Page 15/92	First Paragraph, last sentence The levels in IHSS 204 appear to exceed the specified radiation protection standards They definitely exceed Reg Guide 1 86 and DOE Order 5480 11 surface contamination levels How can you make this statement?	

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33	E	Sect 5 0 Para 5 2 1 3 Page 20/92	<p>Table</p> <p>The proper DAC values for Radiation Workers extracted from 10CFR20, Appendix B, Table 1, Rev Jan 1, 1994 are:</p> <p>Am²⁴¹ — 3 00 E-12 µCi/ml (soluble)</p> <p>Ra²²⁶ — 3 00 E-10 µCi/ml (soluble)</p> <p>Pu²³⁹ — 3 00 E-12 µCi/ml (soluble)</p> <p>Pu²⁴⁰ — 3 00 E-12 µCi/ml (soluble)</p> <p>U²³³ — 5 00 E-10 µCi/ml (soluble)</p> <p>U²³⁴ — 5 00 E-10 µCi/ml (soluble)</p> <p>U²³⁵ — 6 00 E-10 µCi/ml (soluble)</p> <p>U²³⁸ — 6 00 E-10 µCi/ml (soluble)</p> <p>Since these values differ somewhat from those used, how will their use affect the screening process?</p> <p><u>Please explain in detail.</u> This information will be needed to get Final Phase I RFI/RI Report through ESH</p> <p>Paragraph No 2</p> <p>The value used for Pu is wrong if the above is correct</p>	
34	E	Page 21/92 Sect 5 0 Para 5 2 5 Page 27/92	<p>Second Paragraph</p> <p>It is not at all certain that IHSS 204 will remain as an operational RCRA unit in the building Please check and identify what is going to actually going to happen to the Chip Roaster It may have to be RCRA Clean Closed and the Part B Permit modified in any event</p>	

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35	E	Sect 5 0 Para 5 2 8 1 Page 29/92	3rd Sentence IHSS 204 shows considerable surface contamination and did not appear to have been screened for airborne The statement is probably true for only five of the six IHSSs Last Line Recommend that the proper adjective be used to qualify the dose rate as the one for occupational exposure	
36	E	Sect 7 0	IHSS 204 contains surface contamination above and beyond the NRCs limits and the potential for re-suspension and generating airborne limits above those allowable is very real The unit is not currently operating and may not be considered operational by the state under the RCRA Permit since it has not been used for well over a year The question as to its status as either idle or abandoned equipment needs to be addressed This has a tendency to cloud the overall BRA issue It was previously understood that as long as the building safety envelope and the institutional controls remained in place there was no imminent threat of a release to the environment and therefore a BRA was not needed However, the explanation provided in this section indicates otherwise. Please explain	